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**SUPPORTING
DOCUMENT 9**

Mr. John Robertus
9174 Skypark Court
San Diego, CA 92124

**RE: Tentative Order R9-2002-0002 Waste Discharge Requirements for U.S.
Navy, Naval Base Point Loma, San Diego County.**

Dear Mr. Robertus:

Environmental Health Coalition (EHC) and San Diego BayKeeper jointly prepared the following comments regarding the NBPL Tentative Order. The findings in the permit must accurately state the nature of the activities on the base and how they will be regulated.

We still have serious problems with the adoption of UNDS into the permit, as UNDS has not been finalized. The permit is adopting regulations that do not exist and will not be codified until at least 2004. The public must also be aware of the operation, repair and discharges of nuclear vessels at the SubBase. The July 22 Fact Sheet Attachment discusses EPA and Navy radiological monitoring but does not adequately address nuclear vessel operations.

Radiological Concerns:

We continue to take issue with the fact that the operation of nuclear-powered vessels and the discharges from those vessels are not addressed in the permit. The permit **MUST** at least list document and list all radioactive discharges.

- 1) Three EPA radiological surveys (1967, 1986, 1997) *have* found traces of cobalt-60 in the immediate vicinity of the SubBase.¹ These traces could not be attributed

¹ EPA Surveys:

- 1967 Survey: cobalt-60 levels were a maximum of 17.4 pCi/g-dry. The highest activities were detected in the immediate vicinity of the submarine pier.
- 1986 Survey: cobalt-60 levels were a maximum of 0.05 pCi/g-dry. It was found in eight sediment samples from the SubBase (and one from North Island).
- 1997 Survey: cobalt-60 levels varied from 0.012 to 0.035 pCi/g-dry due to a number of testing variables. It was found in one sediment core sample that was taken from the SubBase. 132 total samples were taken. The decrease in levels is consistent with radioactive decay. Survey conclusion: "practices regarding

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to natural levels or fall out. Cobalt-60 is the predominant radionuclide found in environmental media when anthropogenic radioactivity is present. Thus, there have been leaks in the past and we can expect more to happen in the future.

- 2) The latest EPA survey (March 1997) concluded that the operation of nuclear powered warships in San Diego Harbor have resulted in no increases in radioactivity "causing *significant* population exposure or contamination of the environment." Similarly, the Navy's own summary reports state that such operations have had "no *discernable* effect on the environment." Language such as "significant" and "discernable" is far from conclusive. Despite the Navy's claim that no personnel have ever exceeded the Federal accumulated limit, the Navy has settled a number of radiation claims (*Occupational Radiation Exposure from U.S. Naval Nuclear Plants and Their Support Facilities, March 2002*).
- 3) It is ridiculous that the only reference to radioactive discharges and nuclear powered vessels is in Finding 11. We understand that the Atomic Energy Act precludes the Regional Board's regulation of these discharges. However, the discharges from nuclear vessels and the radiological repair work that takes place at the base must be listed in the permit. This must at a minimum include:
 - secondary cooling water discharges
 - thermal plumes
 - fresh water lay up discharges
- 4) In its latest radiological survey report (*Environmental Monitoring and Disposal of Radioactive Wastes from U.S. Naval Nuclear-Powered Ships and Their Support Facilities, March 2002*), the Navy discusses its program for monitoring radioactivity. The quarterly surveys should be reported to the Regional Board with specific results, not summaries of the data. Even though the Department of Energy reviews the Navy's methodology and accuracy in conducting these surveys, the Regional Board must evaluate if there is compliance under *this* permit.
- 5) The Navy's past performance provides no guarantees. Even if there have not been "significant" discharges to date, that does not preclude radiological discharges from happening in the future.

UNDS Concerns:

There are a number of serious problems associated with adopting UNDS into the NBPL permit. We will be submitting comments on Phase II directly to the Navy, Coast Guard and EPA as well. Further concerns regarding nuclear vessel discharges (cooling water, thermal plumes, fresh water lay-up discharges) are addressed in this section as well.

nuclear-powered warship operations at San Diego Harbor have resulted in no increases in radioactivity causing *significant* population exposure or contamination to the environment."

- 1) We have two key concerns (specific examples of these problems follow):
 - a) UNDS regulations may be inadequate in ensuring environmental quality. We must keep in mind that the Navy has been the key player for the Department of Defense in developing these standards. While it is true that the Navy has initiated the process of developing uniform standards, they have strong incentives to ensure that those standards provide as little enforceability as possible.
 - b) The Marine Pollution Control Devices performance standards that are to regulate the discharges do not even exist yet. The Phase II final rule is not expected until 2003. Furthermore the implementing instructions (Phase III) are not expected until 2004. How can UNDS regulate naval vessels and protect the Bay when the standards do not exist! The Regional Board must require monitoring as well as interim standards that regulate discharges until UNDS is finalized. At that point, the Regional Board can determine whether UNDS protects water quality up to California's standards.
- 2) Cooling Water Discharges: UNDS supposedly will regulate nuclear-vessel discharges under *Seawater Cooling Overboard Discharge*. The Nature of Discharge (NOD) report states that metals as well as hydraulic oils and other lubricants from the nuclear propulsion plant and its components (such as heat exchangers) may be released in cooling water discharges. The report concludes that nickel, silver, and copper levels exceed federal and the *most* stringent water quality criteria (WQC). UNDS may do nothing to prevent these discharges for years! The Board must adopt standards that can go into effect upon the immediate adoption of the permit.
- 3) Thermal Plumes: discharges from nuclear vessels constitute unregulated thermal loads. The *Seawater Cooling Overboard Discharge* NOD report discusses the study conducted to determine the impacts of these thermal loads. It is ridiculous that national standards are going to be based on the studies of a total of three ships in three harbors. The NOD report states that aircraft carriers may exceed some regulatory limits but destroyers will not. What about nuclear submarines? Were they even involved in the study? Furthermore, there is no way to know the cumulative effect of thermal ships when the study is based on single ships. This is yet another example of how UNDS is unsatisfactory. Furthermore, even when the standards are implemented they will not adequately regulate pollution sources. This standard will have to be re-visited when the North Island permit is developed.
- 4) Fresh Water Lay-up: when nuclear submarines remain inactive, the propulsion plant systems are filled with fresh water to prevent corrosion. The *Fresh Water Lay-up* NOD report concludes that the "mass loadings of chlorine, copper, nickel, and zinc are small although the concentrations exceed Federal and most stringent

state WQC. The mass loadings of ammonia, nitrogen, and phosphorous are also small, but exceed the most stringent state WQC." These concentrations cannot be that small if they are already exceeding regulatory limitations! Yet UNDS will not be regulating lay-up discharges.

- 5) Underwater Ship Husbandry: divers conduct hull cleaning, painting, and repair work while vessels are docked. Navy vessel antifouling paints contain copper and zinc, which is released during hull cleaning along with live and dead organisms (which can include invasive species). The *Underwater Ship Husbandry* NOD report found a mean of 1,565 ug/L to 2,619 ug/L! Hull cleaning takes place at the SubBase and as we all know copper and zinc levels are exceedingly high.

Toxicity Concerns

The Navy intends to request that the toxicity requirement be held in abeyance until they conduct further studies in order to develop their own new standard. The standard proposed in the Tentative Order is the appropriate defensible standard. It has been correctly applied. The Navy does not get to revise every water quality standard to fit their own needs. It should be remembered that when the Shipyards challenged toxicity testing requirements that were mandated in their NPDES permit, the Superior Court of San Diego found that those challenges were without merit.

- As the court noted, the EPA regards acute and chronic testing as effective tools for assessing the aggregate toxicity of all constituents in a complex effluent. The court also noted that the Basin Plan specifically suggests 96-hour acute bioassay tests of the sort set forth in the permits.
- Furthermore, in the Shipyards Review of Waste Discharge Requirements (Order WQ 98-07) the Regional board found that the acute toxicity requirements and monitoring in the permits were appropriate. This is the exact same acute toxicity standard that is found in the Tentative Order.
- The Navy is not above the Shipyards standard. Both the Regional Board and the Superior of Court of San Diego have found these toxicity tests to be necessary and appropriate! It is absolutely ridiculous that we have to fight just to achieve Shipyard standards when the Navy's cumulative impacts on the Bay are expected to be even greater. In reality the Navy should be subject to much more stringent standards. We strongly support the staff recommended toxicity standard.

Scripps Institute of Oceanography

- We realize that Scripps is not a Navy tenant but their facilities will need their own permits to ensure adequate regulation.

Navy SWPPP and BMPs

- The Navy has stated that it does not want to resample industrial storm water discharges until it has had time to adjust its SWPPP and BMP's. We are not necessarily against this but there *must* be a time limit. Language should be provided in the permit that allows a reasonable time *not to exceed one month*. We do not want a year or more to go by as the Navy "makes changes" to their SWPPP/BMP's.
- If after adjustments are made and high levels of copper and zinc continue to be found, then the discharges must be labeled "high risk" and appropriately diverted.

High Risk Diversions

- The permit should include provisions requiring regular review of the Navy's industrial activities to determine if they should be labeled as "high risk" and diverted.

Receiving Water

- There must be monitoring for receiving waters or we will never have an accurate understanding of the impact of the Navy's discharges. There is substantial language concerning the consequences for violations but there are no monitoring requirements! If no monitoring provisions are added then this language is meaningless and gives the reader the sense that this permit is more stringent than it actually is. Receiving waters should be monitored so that any violations can be known.